

Woodcase Comments

December 6, 2004

Note: The comments below reference draft comments submitted by US EPA to Maricopa County Environmental Services Department (MCESD) in a July 30 email. For your reference, these comments are attached on the following page.

1. In draft comment #3 EPA requested that MCESD include a 99.5% control efficiency requirement in Woodcase's permit for the baghouse, or, alternatively, to allow the source to determine a different control efficiency that would demonstrate compliance during a source test. The proposed permit issued for EPA review on November 15, 2004 has the following condition (19.C.2):

"The Permittee shall operate and maintain each baghouse with a removal efficiency of 99.5 % for particulate matter with an aerodynamic diameter of 100 microns or less or, if this efficiency is not demonstrated during the emission tests required by these Permit Conditions, the Permittee may demonstrate compliance with Rule 311 using the emission rates from the baghouses as determined by the testing required by these permit conditions."

We intended for the permit to specify one or the other. The permit should specify exactly how the source will demonstrate compliance with all applicable requirements, in this case Rule 311. Therefore, the permit should either state: "The Permittee shall operate and maintain each baghouse with a removal efficiency of 99.5 % for particulate matter with an aerodynamic diameter of 100 microns or less" *or* "The permittee shall determine an appropriate control efficiency that demonstrates compliance with Rule 311 during an initial source test."

2. In draft comment #4 EPA requested that the requirements of SIP Rule 311, section 502.3 be included in the permit. This requirement still appears to be missing; please add it to the permit.
3. Draft comment #5 discusses the pressure differential range included in the permit for the baghouse. We are concerned that this range may be too broad to detect problems with the baghouse that may affect control efficiency. The TSD should discuss how Woodcase and MCESD determined the appropriate range. In the absence of any correlating data, the permit should require source tests to determine the appropriate range.
4. In draft comment #8.a, EPA requested that MCESD remove the option under permit condition 20.A.1.a allowing Woodcase to track VOC emissions using purchase records and to require instead that the Permittee track actual usage under all circumstances. No change was made to the permit in response to this comment. Allowing the source to use monthly purchase records does nothing to demonstrate compliance with the facility-wide monthly VOC emission limit of 10 tons/month. For instance, say the first month of permit

issuance the source purchases 10 tons of VOC containing material, but only uses 4 tons. That first month the emissions records would show that the source had used and emitted 10 tons, but the source would actually have 6 tons leftover from actual usage that the source could use at a later time. Say the same thing happens the second month, where the source purchases 10 tons of material, but only uses 4 tons. The source would then have 12 extra tons to use at a later date. The next month the source purchases 8 tons, and actually uses those 8 tons, plus the stockpiled 12 tons from the two previous months. The source would report 8 tons of emissions, but the actual emissions would be 20 tons, double the monthly limit. From a public health standpoint it is important that large amounts of VOCs are not emitted over a short time period. Please remove this option from the permit, and replace it with a requirement to track actual usage of VOC containing material.

5. In draft comment #8.c EPA requested that the permit require Woodcase to use guaranteed product specification sheets supplied by the manufacturer rather than MSDS to determine VOC emissions. Condition 20.A.1 still allows the source to use MSDS to show compliance. Please change the permit in accordance with draft comment #8.c.

Draft Woodcase Comments
7/30/04

1. We have not received copies of past permits. These were requested July 26 (email) and July 27 (voicemail). In the July 27 voicemail I also requested an explanation of the facility-wide VOC limit of 96 tons per year but have not received one. In addition, it appears that EPA does not have a complete copy of the application. We will need a copy of the equipment list and the facility's PTE for regulated pollutants to complete our review. Other notable items that are missing from the application are:

- 1) Description for each process
- 2) Identification and description of all points of emissions
- 3) Maximum and hourly process rates for each piece of equipment and the whole plant
- 4) Information about all fuel burning equipment
- 5) Raw material usage information
- 6) Control equipment list and control efficiency data
- 7) Stack information

2. Condition 18.A.2.b says that in the event the Permittee may exceed the applicable standard set forth in County Rule 311 §301, the Permittee may comply by installing and operating an approved emission control system. It further states that "the emission control system(s) for particulate matter installed on the facility on the effective date of this permit and listed in the equipment list [are] approved emission control system[s]."

- a. Because the Permittee will not be able to comply with the limits of Rule 311 without a control device, the permit should require that control devices (specifically, the baghouses) be installed, rather than stating that they may be installed.
- b. The quoted language regarding approved emission control systems conflicts with the compliance schedule included in the permit, which requires that the cyclones currently installed at the facility be replaced with baghouses to assure compliance with Rule 311.

In general, the permit should simply tell the source what it must do (i.e., comply with the rule by installing an approved control device). It is not necessary to say that an activity or piece of equipment is in compliance. As a result, the Department should remove the language quoted above from the permit.

3. The compliance demonstration for Rule 311 in the TSD is based upon a control efficiency of 99.5% but this efficiency is not required by the permit. The Department should include a requirement in the permit which states that this control efficiency must be achieved and that the 99.5% efficiency must be verified during the source tests.

Alternatively, the permit should require that the Permittee demonstrate compliance with the limits of Rule 311 using the control efficiency that is verified during the source tests.

4. The requirements of Rule 311 §502.2 and 502.3 are missing from the permit. These requirements are necessary to assure compliance with the limits of Rule 311 and need to be included in the permit.
5. Condition 19.C.1 requires that the Permittee operate and maintain each baghouse in accordance with the requirements of the most recently approved O&M plan. The citation in the permit for this requirement is Rule 311 §305 but the proper federally enforceable citation is Rule 311 §306. Please change the permit accordingly.
6. Condition 19.C.2 requires that the Permittee inspect the baghouse if the pressure differential falls outside of the allowable range between 0.5 and 6.0 inches of water.
 - a. It is not certain that the baghouses will be able to comply with the limits of Rule 311 over such a wide range of differential pressures. Section 306 of Rule 311 requires that the approved O&M plan specify the key system operating parameters, such as the pressure, that are necessary to determine compliance with the rule. EPA suggests that the Department revisit the analysis in the O&M plan to ensure that the baghouse can achieve sufficient PM emission reductions to comply with the rule over such a wide differential pressure range. In addition, the Department should ensure that the baghouses are source tested in such a way that establishes a correlation between the differential pressure and the baghouse's control efficiency. If necessary, the Department should revise the permit following the source tests so it contains the appropriate differential pressure range.
 - b. The County's RACT rule is cited as the origin of this condition. While the requirement to install and operate the control device may stem from the County's RACT rule, the actual operating parameters should come from the facility's approved O&M plan for each device. As a result, the Department should change the citation from County Rule 241 §302 to SIP Rule 311 §305.
7. Condition 20.B.11 states:

The Permittee shall submit within three months of the permit's issue date, recordkeeping data of the differential pressure readings from each baghouse to support the differential pressure range in permit condition [20.B.9], of 0.5 to 6.0 inches of water. Records submitted shall be from the previous two-year period. The Permittee shall submit at minimum, ten separate calendar day records for each baghouse.

Although the data requested in this condition may support a claim that the baghouses can function properly over a wide range of differential pressures, it should not be relied upon solely to set the acceptable range. Rather, the range should be set considering the data submitted by Permittee, the results of the source tests, and any manufacturer's specifications.

- a. Condition 20.A.1.a states that when the 12-month rolling total is below 90 tons, the Permittee may calculate the facility's VOC emissions based upon the purchase records for each month, assuming that all VOCs are emitted during the month in which they are purchased. This method may not be representative of the facility's actual emissions and will not assure compliance with the 10 ton per month limit. This method of calculation could actually allow the facility to exceed the monthly limit because the Permittee could stockpile VOC-containing materials in the months when production is low and then use the reserves in months when production activity increases. Under such a scenario, the Permittee could far exceed the 10 ton/month limit as long as the rolling total remained below the 90 ton threshold. As a result, the District should remove the option under 20.A.1 and require that the Permittee track actual usage under all circumstances.
 - b. The recordkeeping associated with the facility-wide VOC limit should be modified to be practically enforceable (Condition 20.A.1.b). To assure compliance with the facility-wide VOC limit, the permit requires Woodcase to track VOC emissions monthly until they reach 90 tons per year, at which time they must track their emissions weekly. To assure compliance with the facility's 96 ton per year limit, the trigger for weekly monitoring should be lowered from 90 tons per year to 86 tons per year or lower. Because Woodcase has a 10 ton per month limit, they could easily exceed their 96 ton per year limit within a month and not discover the exceedance until the following month.
 - c. For the purposes of determining the VOC content of coatings and other materials at the facility, Condition 20.A.1 allows the use of "an MSDS or other similar documentation." Material safety data sheets are intended to provide safety information regarding a particular product or type of product. Although they usually contain information about the composition of the product, that information is typically presented in a range and may not be exact for the specific product being used at the facility. The permit should require that the Permittee instead use product specification sheets supplied by the manufacturer which are guaranteed to represent the VOC content of each material.
9. The equipment list does not contain a sufficient level of detail. For each piece of equipment, please include the dates of its installation or most recent modification.
10. The permit cites County Rules 100 §301 and 241 §302 as the basis for the requirement to install, operate, and maintain control devices for the woodworking equipment. The Permittee is also using the control devices because it can not meet the limits of Rule 311 without them. As a result, County Rule 311 §304 should be added to the list of origin citations for this requirement. The Department should note that this condition overlaps with the requirements of Condition 18.A.2.b. The Department may, if it wishes, combine these requirements into a single condition.
11. Condition 18.A.4.a states that the Permittee shall limit VHAP emissions from finishing

operations by meeting the emission limitations for existing sources pursuant to 40 CFR 63.802(a)(1). The applicable numerical limits from table 3 of the MACT standard JJ must be included in the permit.

12. Condition 18.A.4.a also states that the limits of 63.802(a)(1) shall be achieved using any of the compliance methods in 63.804(a). To be practically enforceable, the source must choose a compliance option and that compliance option must be specified in the permit. If the source wishes to have multiple compliance options in the permit these must be included as alternate operating scenarios. The implementation document for this MACT standard, available at <http://www.epa.gov/ttn/atw/wood/wood4.pdf>, should clarify how to accomplish this in the permit.
13. Conditions 24.B.1, 24.B.3, and 24.B.12 require the development of work practice, inspection and maintenance, and formulation assessment plans. Have these plans been developed and submitted? Please note that condition 24.B.12.a refers to table 23.1; this citation should be corrected to 24.1.
14. Condition 23.A contains a compliance schedule for Rule 311. While this schedule spells out the requirements for submitting an application for a permit revision, delivery of the control device, and testing of the control device, the schedule contains no milestone for installing the control device. Please add a date by which the control device must be installed. Please also explain why the compliance plan gives the source 8 months to have the control device delivered. We believe that the compliance schedule in the proposed Title V permit for Thornwood provides a good example of appropriate milestones. We would suggest that, at a minimum, the compliance schedule for Woodcase look like this:

Milestones	Completion Date
Control technology delivery.	3/1/05
Installation of control technology.	4/15/05
Start-up and debugging period.	6/15/2004
Conduct Performance Test.	8/15/2005
Submit Test Report to Maricopa County	9/15/2005

15. In the absence of a facility-wide PM10 emissions limit, the TSD should include a discussion of the facility-wide PTE for PM10, and what that PTE is based on.
16. Section V of the TSD states that compliance assurance monitoring (CAM) is not applicable because Woodcase does not use a control device to achieve compliance with any emission limitation or standard for a pollutant for which the source has potential pre-control device emissions greater than or equal to major source levels for that pollutant. Because Woodcase does use a cyclone to control particulate emissions to assure compliance with MCESD rule 311 and because the TSD and the application contain no information regarding the pre-control potential to emit for PM10, the pre-control emissions from the cyclone may exceed the major

source level of 70 tons per year. Therefore CAM applicability cannot be excluded on this basis unless further analysis is provided to support this conclusion.

17. While the permit requires an operation and maintenance (O&M) plan for the baghouse, until the baghouse is installed and operated, an O&M plan requirement should be included for the cyclone per SIP Rule 311 §306.
18. Baghouse filters should be replaced on a regular basis. Please include a permit condition in Section 19 requiring such, and recordkeeping and reporting requirements in Sections 20 and 21.
19. Condition 19.D.1 requires a 90% removal efficiency for the cyclone however there is no discussion regarding how compliance with the requirement will be assured; at a minimum please document that the cyclone was designed to achieve this level of efficiency.